

IN THE CIRCUIT COURT OF THE
NINTH JUDICIAL CIRCUIT, IN AND
FOR ORANGE COUNTY, FLORIDA
CRIMINAL JUSTICE DIVISION

STATE OF FLORIDA,

Plaintiff,

vs.

CASEY MARIE ANTHONY,

Defendant./

CASE NUMBER: 48-2008-CF-15606-O

DIVISION NUMBER: 16

VOLUME I of I

EXCERPT OF JURY TRIAL PROCEEDINGS

TESTIMONY OF STEPHEN SHAW

BEFORE

THE HONORABLE BELVIN PERRY JR.

In the Orange County Courthouse
Courtroom 23A
Orlando, Florida 32801
June 13, 2011
Nikki Peters, CRR, RPR

A P P E A R A N C E S:

JEFFREY ASHTON, ATTORNEY
LINDA DRANE BURDICK, ATTORNEY
FRANK GEORGE, ATTORNEY
Assistant State Attorneys
415 North Orange Avenue
Orlando, Florida 32801
On behalf of the State

JOSE BAEZ, ATTORNEY
522 Simpson Road
Kissimmee, Florida 34744
On behalf of the Defendant

1 **J. CHENEY MASON, ATTORNEY**
2 390 North Orange Avenue, Suite 2100
3 Orlando, Florida 32801
4 On behalf of the Defendant

5 **DOROTHY CLAY SIMS, ATTORNEY**
6 118 SW Fort King Street
7 Ocala, Florida 34471
8 On behalf of the Defendant

9 **WILLIAM SLABAUGH, ATTORNEY**
10 522 Simpson Road
11 Kissimmee, Florida 34744
12 On behalf of the Defendant

13 **LISABETH FRYER, ATTORNEY**
14 390 North Orange Avenue
15 Suite 2100
16 Orlando, Florida 32801
17 On behalf of the Defendant

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1 **THE COURT:** Good morning. Let the record reflect
2 that the defendant is present, along with counsel for
3 the defendant, assistant state attorneys.

4 Both sides ready to proceed?

5 **MR. ASHTON:** Yes, sir.

6 **MR. BAEZ:** Yes, sir.

7 **THE COURT:** Okay. Who will be the State's first
8 witness?

9 **MR. ASHTON:** Stephen Shaw.

10 **THE COURT:** Okay. Let's bring the jury in.
11 (Jury entered the courtroom.)

12 **THE COURT:** Good morning, ladies and gentlemen of
13 the jury.

14 **THE JURY:** Good morning.

15 **THE COURT:** Did you heed all of my previous
16 admonitions during your semi-weekend break?

17 **THE JURY:** Yes.

18 **THE COURT:** Okay. Does the State recognize the
19 presence of the jury?

20 **MR. ASHTON:** Yes, Your Honor.

21 **THE COURT:** And does the defense?

22 **MR. BAEZ:** Yes, sir, we do.

23 **THE COURT:** State may call their next witness.

24 **MR. ASHTON:** State would call Stephen Shaw.

25 **STEPHEN SHAW**

1 was called as a witness and, having first been duly sworn,
2 testified as follows:

3 **THE WITNESS:** Hi. I'm Stephen Shaw.

4 S-T-E-P-H-E-N, S-H-A-W.

5 **DIRECT EXAMINATION**

6 **BY MR. ASHTON:**

7 **Q** And Mr. Shaw, how are you employed?

8 **A** I'm a hair and fiber examiner for the Federal
9 Bureau of Investigation Laboratory.

10 **Q** And how long have you been employed in that
11 capacity?

12 **A** I've held my current position for approximately six
13 years.

14 **Q** What educational background do you have that led
15 you to your present position?

16 **A** I have a Bachelor's of Science and a Master's of
17 Science. Both degrees are in textile chemistry, and both
18 degrees are from North Carolina State University.

19 **Q** After obtaining your degrees, did you immediately
20 go to work for the Federal Bureau of Investigation?

21 **A** No. After getting my degrees, I did -- I was in --
22 a research associate for the university for approximately six
23 months. Then I took another job in the textile industry
24 where I was a senior research associate for approximately six
25 months, and then I began work at the FBI laboratory.

1 Q During your -- your time with the FBI, did you have
2 additional education through the FBI itself?

3 A Yes, I did.

4 Q What type of training was that?

5 A I received -- to become a hair and fiber examiner,
6 I received approximately a one-year training program where I
7 was under the direct guidance of qualified hair and fiber
8 examiners.

9 And during that time, I examined numerous hairs,
10 numerous fibers, and I had to complete tests throughout my
11 training program, including identification tests, matching
12 tests, oral boards, as well as moot court exercises.

13 Q And how long -- and after that year period of time,
14 did you then begin working independently as a hair and fiber
15 examiner?

16 A After completing that year of time, I began working
17 independently as a hair and fiber examiner.

18 Q And have you previously testified as an expert in
19 that area in courts of law in the United States?

20 A Yes, I have.

21 Q Approximately how many times?

22 A Twelve times.

23 Q And in how many different jurisdictions?

24 A Um, I've testified prior in Florida, in New York,
25 Virgin Islands, California, Montana, Illinois, Virginia, are

1 a few.

2 **MR. ASHTON:** All right. At this time, Your Honor,
3 I would submit the witness as an expert in the area of
4 hair and -- forensic hair and fiber identification and
5 analysis.

6 **THE COURT:** What says the defense?

7 **MR. BAEZ:** No objections.

8 **THE COURT:** Ladies and gentlemen of the jury, the
9 witness will be accepted as an expert witness in the
10 area of hair and fiber identification.

11 You may continue, Mr. Ashton.

12 **BY MR. ASHTON:**

13 **Q** Sir, back in the middle part of 2008, you were
14 working at the FBI Lab; is that correct?

15 **A** That's correct.

16 **Q** Did you become involved in doing a confirmation
17 examination of a hair in the case involving Caylee Marie
18 Anthony, which was designated as Q12, that Karen Korsberg
19 Lowe had previously examined?

20 **A** Yes.

21 **Q** What's the purpose of that process of confirmation
22 as I think you call it?

23 **A** Yeah. The confirmation process is really a quality
24 assurance step to make sure any time --

25 **MR. BAEZ:** Judge, at this time -- I apologize,

1 Mr. Shaw.

2 At this time, we would object and renew our
3 previous motions and objections under *Frye*.

4 **THE COURT:** Based upon that objection, objection
5 will be overruled.

6 You may continue.

7 Thank you.

8 **BY MR. ASHTON:**

9 **Q** Go ahead.

10 **A** So it's a part of our quality assurance procedure.
11 So whenever we have an identification or we associate -- an
12 association, we then have a second examiner to do an
13 independent examination to see if they can reach the same
14 conclusion or not.

15 **Q** Now, when you do that, do you already know the
16 conclusions that the other examiner has found?

17 **A** Yes, we do.

18 **Q** So in this case, were you looking to confirm the
19 identification of apparent decomposition; is that -- just
20 that or the -- the comparison to the purported known hair, as
21 well?

22 **A** It was a confirmation for the apparent
23 decomposition, as well as microscopic similarities to a hair
24 collected from a hairbrush.

25 **Q** And did you confirm both the apparent decomposition

1 and the microscopic similarity to the hair from the
2 hairbrush?

3 A Yes, I did.

4 Q Did there come a time later in 2008 when you were
5 called upon to examine some additional evidence as to the
6 same case?

7 A Yes.

8 Q What came into the laboratory -- first of all,
9 why -- why did you do the second examination, as opposed to
10 Ms. Lowe?

11 A Because Ms. Lowe wasn't available at the time.

12 Q Now, what came into your lab -- were you submitted
13 what is referred to as a hair mass?

14 A Yes, I was.

15 MR. ASHTON: If I could have State's Exhibit 271,
16 Madam Clerk.

17 BY MR. ASHTON:

18 Q Let me show you State's Exhibit 271 and ask if you
19 recognize that as the item that we just referred to that was
20 submitted to your laboratory?

21 A I do recognize it.

22 Q All right. And should that contain the hair mass
23 that was submitted by Orange County Sheriff's Office or the
24 Medical Examiner's Office?

25 A Yes. According to the -- the laboratory markings,

1 it should.

2 Q Okay. Now, what type of examination did you
3 perform on -- you designated this Q59 for your purposes,
4 correct?

5 A That's correct.

6 Q Okay. So what type of examination did you do on
7 State's Exhibit 271, your Q59?

8 A I examined the hairs from the hair mass
9 microscopically. And I also then compared those hairs to the
10 hair previously reported as originating from the trunk of the
11 vehicle.

12 Q Now, when you examined the hair mass, did you find
13 evidence of apparent decomposition on the hair mass?

14 A Yes.

15 Q Did you find a band similar to what you had seen on
16 the Q12 hair in the hair mass?

17 A Um, there was a band just -- just above the end of
18 the root. It was not similar, I would say, to the hair in
19 the trunk, the band itself. It was a band just above the
20 root. And the root itself had sort of a brush-like
21 appearance. So it's really a later stage of apparent
22 decomposition than what was seen in the trunk.

23 Q So the -- the hair in the trunk, did it still -- it
24 had the band and still had the root, if that -- do I
25 understand that correctly?

1 A It had -- the hair in the trunk, yes, still had a
2 band with root material below the band.

3 Q And the hairs in the Q59 had the band, but the root
4 had a brush-like appearance?

5 A That's correct.

6 Q And is that brush-like appearance associated with
7 later stages of decomposition?

8 A Yes.

9 Q Now, did you also compare the -- the hairs in
10 Q59 -- um, in essence, as a -- as a purported known sample of
11 the victim's hair to the hair from Q59 to determine whether
12 they were microscopically similar?

13 A Yes, I did.

14 Q And what was the conclusion of that comparison?

15 A The -- the previously reported Q12 hair, Caucasian
16 head hair, exhibiting characteristics of apparent
17 decomposition at the root end, exhibited the same microscopic
18 characteristics as the Caucasian head hairs from the hair
19 mass. Accordingly, this hair and the hair mass are
20 consistent with originating from the same source.

21 However, it should be noted that hairs are not a
22 means of positive identification. In other words, I cannot
23 say that a hair did originate from a person to the exclusion
24 of all others. I can say it is consistent.

25 I should also -- it should also be noted that the

1 hair mass itself is not a suitable known hair sample. In
2 other words, I did not have hairs plucked from an
3 individual's scalp, from a known individual's scalp.

4 Q And the reason you -- you add that caveat is
5 because, obviously, you, as an examiner, cannot testify that
6 the hair mass came from the victim, just that -- all you know
7 is it was found with the victim. Is that a correct
8 assessment of your caveat?

9 A We don't -- we don't know, I don't know, the source
10 of those hairs.

11 Q All right. Now, have you, in your work at the FBI,
12 participated in a research project to further the scientific
13 knowledge in the area of this decomposition artifact that
14 we've been talking about?

15 A I have, yes.

16 Q What type of research project have you been
17 involved in?

18 A I have been conducting a study that is still
19 ongoing. I've just started writing the manuscript and am in
20 that phase right now. So the preliminary results are 600
21 hairs stored in various locations. These 600 hairs were
22 collected from 15 living individuals. So 600 antemortem
23 hairs.

24 And the hairs, again, were stored in various
25 conditions, to include: Indoors, on a windowsill; indoors,

1 buried in potting soil that was watered and fertilized
2 weekly; indoors, submerged in water; outdoors, in a grassy
3 area that received direct sunlight; outdoors, in a wooded
4 area that did not receive direct sunlight; and in three
5 different vehicles; in the trunk of a vehicle that was used
6 during the time periods; underneath the seat of a second
7 vehicle that was also used during the time periods; and on
8 the dash and in the trunk of the third vehicle that was not
9 used during the time periods. And this vehicle was parked in
10 a location where it could receive direct sunlight.

11 The time periods varied anywhere from approximately
12 a week to approximately seven months.

13 At the end of those time periods, I then examined
14 hairs at the root end, microscopically, to determine changes,
15 if there are microscopic changes at the root end. No hairs
16 stored in the vehicles and no hairs indoors on the windowsill
17 exhibited characteristics of apparent decomposition.

18 Some of the hairs stored outdoors, most of the
19 hairs buried in potting soil and most of the hairs submerged
20 in water, did exhibit characteristics of apparent
21 decomposition. And some of these characteristics are similar
22 to characteristics we see in hairs removed postmortem.

23 However, no postmortem banding was observed in any
24 of these hairs. So they did exhibit some apparent
25 decomposition, but no banding.

1 I then set up a test where I included all hairs
2 that had any possible changes at the root end in the test. I
3 also included hairs known to be removed from deceased
4 individuals, so known postmortem hairs. Those also were
5 included in this test.

6 The test was given to two different examiners not
7 involved in the initial analysis, but two different
8 examiners. And they were given three answer sheets total.
9 They were each given an answer sheet to do their initial
10 analysis, and they were asked to identify any hairs given to
11 them that exhibited characteristics of apparent decomposition
12 with postmortem banding.

13 Besides our initial analysis answer sheet, they
14 were also given a confirmed result answer sheet where they
15 discussed their initial analysis to come up with one
16 confirmed result.

17 In the confirmed results, the hairs [sic] correctly
18 identified all the postmortem banded hairs and excluded all
19 of the environmental hairs in the study as being banded. In
20 their initial analysis, examiner one correctly identified all
21 the postmortem hairs that were banded but also included one
22 of the antemortem hairs, one of the environmentally studied
23 hairs in the study, as banded.

24 Examiner two, correctly, in his initial analysis,
25 identified all of the postmortem banded hairs, but also

1 identified one of the hairs -- one of the antemortem hairs as
2 banded.

3 So each examiner initially made an error in
4 determining banding. With their confirmed results, they
5 excluded those two -- those two environmentally stored hairs
6 and only had the -- the postmortem banding hairs as a
7 confirmed result.

8 Q Let me clarify one thing on that. Did each of the
9 two -- again, was this test a blind test?

10 A It was blind in that they didn't know the answers.
11 They didn't know if any postmortem hairs were actually put
12 into the test. They -- they were aware that I had been doing
13 a study on the environmental impact of hairs from living
14 individuals. But that -- that's all they knew.

15 Q All right. And just to clarify, one examiner, in
16 his initial examination, picked out one hair as possible
17 banding and the other examiner, in his initial examination,
18 picked out a different hair as possible banding, and then
19 when the two got together, they -- they agreed that both
20 should be excluded as postmortem banding; is that correct?

21 A That is correct.

22 Q Did you prepare a PowerPoint presentation to
23 demonstrate the results of your study?

24 A Yes, I did.

25 Q All right. Let me show you State's Exhibit QL for

1 identification and ask you, is that the -- the PowerPoint to
2 demonstrate the study?

3 A Yes, it is.

4 MR. ASHTON: Your Honor, for demonstrative
5 purposes, I would like to publish to the jury State's
6 QL. I'm not moving it into evidence. It does not
7 involve the evidence in this case.

8 MR. BAEZ: Your Honor, may we approach?

9 THE COURT: You may.

10 (The following conference was held at the bench.)

11 MR. BAEZ: Judge, I've never seen this PowerPoint
12 presentation.

13 MR. ASHTON: This contains all the photographs we
14 provided to Ms. Sims pursuant to her request about the
15 photographs in the research study.

16 MR. BAEZ: Just photographs?

17 MR. ASHTON: Just photographs.

18 MS. SIMS: The problem, though, is I asked for all
19 the photographs. I also asked permission to speak with
20 this individual after having seen the -- I wasn't
21 allowed to make copies of the study. That wasn't given
22 to me until a couple of days ago.

23 I asked to speak to this individual, and I copied
24 Mr. Ashton on this email, to ask him some questions
25 because it appears as though one of the scientists may

1 have had an error rate of 30 percent or more.

2 I haven't had an opportunity to talk to him, asked
3 Ms. Wolff, could I speak to him, could I ask him
4 questions about it. I wasn't given all the photographs,
5 and the photographs that I was given were black and
6 white, not very clear.

7 When we got here this morning, we see color
8 photographs that appear to be much easier to see, and
9 some of the photographs that I was given were not in
10 that PowerPoint. So I believe --

11 **THE COURT:** You need to talk up a little bit so she
12 can hear you.

13 **MS. SIMS:** I'm sorry. I apologize.

14 Some of the photographs that I was given are not in
15 color, and if -- if that -- those are the photographs
16 that you put on the table -- are those the same ones?

17 **MR. ASHTON:** I believe -- what he told me last
18 night when he gave this to me is this contains the
19 photographs that you were given, including, I believe,
20 those -- those ones that you asked for later that were
21 just given to me last night.

22 You know, if -- if the Court -- there's a great
23 deal of email going back and forth on this -- on this
24 issue. And to my understanding, Ms. Wolff has provided
25 to you everything that -- that they could provide, that

1 you've seen all these photographs.

2 As far as interviewing this witness, my
3 understanding from the emails was that you requested
4 that, it was said it was okay as long as I was allowed
5 to be available and present, and that was Saturday
6 afternoon and we hadn't heard anything since then.
7 We've been available.

8 **MS. SIMS:** From Ms. Wolff?

9 **MR. ASHTON:** Right.

10 **MS. SIMS:** And there are 600-plus photographs. I
11 was not provided with all the photographs. I was
12 provided with a few photographs, and they're black and
13 white. You can't see them clearly. Now we see color
14 photographs, which I wasn't given them.

15 **MR. ASHTON:** This is the first I've heard -- I'm
16 sorry.

17 **MS. SIMS:** Go ahead.

18 You gave me black and white and they're not clear,
19 and I wasn't allowed to take anything from the FBI,
20 looking -- trying to absorb 600-plus photographs. I
21 wasn't allowed to take -- I asked for digital copies. I
22 wasn't given digital copies. I asked for everything.

23 **THE COURT:** Bottom line is, you haven't seen this?

24 **MS. SIMS:** Well, I --

25 **THE COURT:** All right. Just a second.

1 (The bench conference was concluded.)

2 **THE COURT:** Members of the jury, we're going to ask
3 that you step out at this time.

4 We have a brief matter we need to take up outside
5 of your presence.

6 (Jury exited the courtroom.)

7 **THE COURT:** Just publish it.

8 **MR. ASHTON:** I just put it for the witness and
9 counsel.

10 **MR. BAEZ:** Judge, if we can do it in the form of a
11 proffer. Obviously, we haven't had an opportunity to
12 discuss this with the witness.

13 **COURT REPORTER:** Mr. Baez, can you turn your
14 microphone on?

15 **MR. BAEZ:** I apologize to the court reporter.

16 **MR. ASHTON:** The witness --

17 **MR. BAEZ:** I'm requesting that we do this in the
18 form of a proffer. Since we haven't had the opportunity
19 to discuss this PowerPoint with the witness, it might be
20 the optimal way of doing this.

21 **MR. ASHTON:** Well, I'd rather not do a proffer
22 because I -- I mean, the witness has been deposed at
23 length about the study. But if counsel has questions of
24 him as they're looking at it, I don't have a problem
25 with them asking them. Or we could just have him come

1 over here, and we can all sit down and go through it,
2 the Court can take a break, the court reporter can take
3 a break, and -- I don't have a problem with that at all.

4 **MR. BAEZ:** It's -- it's however Your Honor wishes
5 to proceed. We had no knowledge of this PowerPoint.
6 Obviously, since we didn't have knowledge of it, we
7 can't -- we couldn't have discussed it with the witness.
8 So, however --

9 **MR. ASHTON:** Well --

10 **MR. BAEZ:** Excuse me.

11 **THE COURT:** One at a time, Mr. Ashton.

12 **MR. ASHTON:** Yes, sir.

13 **MR. BAEZ:** Whichever way the Court thinks is the
14 most efficient and just way of proceeding, we're in
15 agreement. But I'd certainly like to know what the
16 witness will be describing and -- and talking about as
17 he goes through this PowerPoint.

18 **THE COURT:** Okay. Is it true that the defense has
19 not been given this PowerPoint?

20 **MR. BAEZ:** Yes, sir, it is true we have not
21 received it.

22 **MR. ASHTON:** Just so -- if I might respond to that?

23 **THE COURT:** Yes.

24 **MR. ASHTON:** The actual PowerPoint, no. Everything
25 in the PowerPoint, every photograph, yes. And that's my

1 understanding, and Mr. Shaw can -- let me just ask
2 Mr. Shaw that.

3 All the photographs in the PowerPoint have been
4 provided to the defense; is that correct?

5 **THE WITNESS:** That's correct. They were provided
6 to you.

7 **MR. ASHTON:** And there's nothing in the PowerPoint
8 but photographs, so it's -- there's no text, there's no
9 discussion, anything like that?

10 **THE COURT:** Well --

11 **COURT REPORTER:** Sorry?

12 **MR. BAEZ:** I can clarify one more point if the
13 Court feels necessary.

14 One, we just received these photographs when we
15 walked in this morning.

16 Two, if -- if there are photographs that were
17 previously disclosed, they're black and white
18 photocopies, which is significantly different than
19 something that is in color.

20 Everything that they've been presenting is in
21 color. If they plan on presenting in black and white,
22 okay, not a problem. We don't need to proceed any
23 further. But if they're planning on going in living
24 color, there's a difference.

25 **THE COURT:** Well, this is what I will do.

1 I will give them an opportunity to have them
2 displayed now.

3 If there are some questions, Ms. Sims, and
4 Mr. Baez, you want to ask of the witness, I will permit
5 you to do that, and then we'll go from there.

6 **MR. BAEZ:** Yes, sir.

7 **MR. ASHTON:** If -- let Mr. Perez know when you want
8 to go to the next slide.

9 **MR. BAEZ:** May I stand at the podium?

10 **THE COURT:** Yes, you may.

11 **MR. BAEZ:** Well, actually, I can't, 'cause I can't
12 see the monitor, so . . .

13 **THE COURT:** Isn't there a monitor on the podium?

14 **MR. ASHTON:** Yes, sir, it's on there.

15 **MR. BAEZ:** So may I inquire of the witness,
16 Your Honor?

17 **THE COURT:** Go ahead.

18 **PROFFER EXAMINATION**

19 **BY MR. BAEZ:**

20 **Q** Mr. Shaw, can you please describe to us what we're
21 looking at on the screen right now?

22 **A** Yes. These are hairs that were used in the study
23 that I just described. What you see on -- on this particular
24 slide are hairs that were stored indoors on the windowsill
25 for 233 days, before on the left-hand side, before it was

1 stored on the windowsill, and after 233 days on the
2 right-hand side.

3 Q Thank you, sir.

4 MR. BAEZ: We can proceed to the next slide.

5 BY MR. BAEZ:

6 Q And this photograph and this slide -- excuse me,
7 this diagram here?

8 A This -- also are hairs that were used in the study
9 I just described but on a vehicle dash stored for 202 days.
10 Again, a before shot on the left and an after photograph on
11 the right-hand side.

12 Q Would you describe the after photograph, the
13 darkening in the shaft area of the photograph, as some form
14 of decomposition?

15 A I'm not sure what dark hair you're -- you're
16 referring to.

17 Q I'll show you in a second, if I can -- well, I
18 can't. This one doesn't work.

19 MR. ASHTON: You got to edit it from here.

20 THE COURT: You have to do that from the podium.

21 BY MR. BAEZ:

22 Q This area here?

23 A No. That is, um . . . the medulla, which is the
24 third/central portion of the hair. So it's not apparent
25 decomposition.

1 **Q** What is the darkening there that we see?

2 **A** That is the medulla. There's three structural
3 components to hair: The cuticle surrounds the hair, there's
4 the cortex which is underneath that cuticle, and then running
5 through the center of the hair is the medulla.

6 **Q** So that's something natural in someone's hair?

7 **A** Yes.

8 **Q** Okay.

9 **MR. BAEZ:** We can go to the next slide.

10 **BY MR. BAEZ:**

11 **Q** And what are we looking at here, sir?

12 **A** These are also hairs I used in the study I just
13 described, hairs stored in the trunk of a vehicle, before on
14 the left-hand side, and after on the right-hand side.

15 **Q** Okay. All right.

16 **MR. BAEZ:** The next slide.

17 **THE WITNESS:** Additional hairs stored outdoors on a
18 grassy area, before on the left-hand side, and after on
19 the right-hand side.

20 **MR. BAEZ:** Okay. Next photo.

21 **THE WITNESS:** Additional hairs stored in wooded
22 area, before on the left-hand side, and after on the
23 right-hand side.

24 **BY MR. BAEZ:**

25 **Q** And the darkening at the root area, what would you

1 classify that as on the after photos?

2 **A** That is characteristics of apparent decomposition
3 but without a band.

4 **Q** Okay.

5 **MR. BAEZ:** We'll go to the next photo.

6 **BY MR. BAEZ:**

7 **Q** And what does this describe, sir?

8 **A** Hair stored outdoors in a wooded area, before on
9 the upper left-hand quadrant, and then three after shots
10 following that one.

11 **Q** And the darkening near the root area, what is --
12 what would you describe that as?

13 **A** It is characteristics of apparent decomposition.
14 But, again, not a band.

15 **Q** Okay.

16 **MR. BAEZ:** Next slide.

17 **BY MR. BAEZ:**

18 **Q** And here?

19 **A** This is, again, more -- more hairs. Before on the
20 left-hand side, and after, stored in an outdoor, grassy area.

21 **Q** And the darkening at the root area?

22 **A** It appears to be characteristics of apparent
23 decomposition but without a band.

24 **Q** Okay.

25 **MR. BAEZ:** Next photograph.

1 **THE WITNESS:** Additional hairs used in the study.

2 These hairs, left-hand side is before, and then on the
3 right-hand side, after.

4 And these hairs were stored in an outdoors, grass
5 area.

6 Again, some apparent decomposition afterwards, but
7 no band.

8 **BY MR. BAEZ:**

9 **Q** And when you refer to the banding, are you
10 referring to the apparent decomposition reading -- reaching
11 the entire width of the hair?

12 **A** There are several things we look for in a band.
13 The band has to be above the root or root bulb, and it has to
14 be opaque. And it has to be a defined certain thickness and
15 a certain length.

16 **Q** Okay. And so it has to be -- what in here does not
17 meet that qualification --

18 **A** Um --

19 **Q** -- for a band?

20 **A** It's not opaque, it's just some dark striations but
21 -- but it's not opaque.

22 **Q** Other than that, it meets all of the other
23 requirements?

24 **A** Um, it's also not clearly defined. Some of the --
25 some of the striations run down into the root bulb, further

1 down into the root.

2 Q All right.

3 MR. BAEZ: Next slide.

4 THE WITNESS: This, again, are hairs stored in an
5 outdoors wood area, before on the left-hand side, and
6 after on the right-hand side.

7 BY MR. BAEZ:

8 Q And what is the darkening here?

9 A That is characteristics of apparent decomposition
10 but not a band.

11 Q Okay.

12 MR. BAEZ: Next slide.

13 THE WITNESS: Additional hairs submerged in water.
14 Before on the upper left-hand quadrant, after on the
15 right, upper left and -- and lower center portion of the
16 slide.

17 BY MR. BAEZ:

18 Q And what would you characterize the after to look
19 like?

20 A As apparent decomposition but without a band.

21 MR. BAEZ: Next slide.

22 THE WITNESS: This -- these are also hairs
23 submerged in water. Before shot on the left -- upper
24 left-hand quadrant, after shots on the upper right-hand
25 quadrant and lower center portion of the slide.

1 And this hair also exhibits characteristics of
2 apparent decomposition but without a band.

3 **BY MR. BAEZ:**

4 **Q** Now, there are certain characteristics that appear
5 to be different from those that are submerged in water. Can
6 you account for the differences in those or is that just an
7 unknown phenomena?

8 **A** I'm sorry, can you repeat that?

9 **Q** There's -- there appears to be differences between
10 some of the hairs that are showing with apparent
11 decomposition. Can you account for those differences?

12 **A** In the study, the antemortem hairs?

13 **Q** Yes, the antemortem hairs.

14 **A** No. I don't know why in certain -- you know, the
15 apparent decomposition occurs in certain locations versus
16 others or why the apparent decomposition looks different
17 among the antemortem hairs.

18 **Q** And the difference could be the person, something
19 in their genes that makes their hair change?

20 **A** I don't -- I don't know what the difference is.

21 **Q** Okay. But there are various factors that you may
22 consider, correct?

23 **A** There are various factors involved. I just don't
24 know what would affect --

25 **Q** Okay.

1 **A** -- the -- the apparent decomposition we're seeing
2 in these antemortem hairs.

3 **Q** Okay.

4 **MR. BAEZ:** Next -- next slide.

5 **BY MR. BAEZ:**

6 **Q** What do you have here, sir?

7 **A** This is another hair submerged in water for a
8 hundred days. Before on the upper left-hand quadrant, after
9 on the upper right-hand quadrant and on the lower center
10 quadrant.

11 **Q** And what do you have here?

12 **A** It also is characteristics of apparent
13 decomposition but not what we would classify as a band.

14 **Q** Okay.

15 **MR. BAEZ:** Next slide.

16 **THE WITNESS:** Another -- images of hairs used in
17 the study I described, submerged in water for a hundred
18 days, before on the left-hand side, and after on the
19 right-hand side.

20 **MR. BAEZ:** Next slide.

21 **BY MR. BAEZ:**

22 **Q** What do you have here, sir?

23 **A** Additional hairs submerged in water for a hundred
24 days, before on the left-hand side, afterwards on the
25 right-hand side.

1 Q And is there any apparent decomposition here?

2 A Yes. You can -- you can see that the -- the root
3 portion -- the soft tissue on the root portion is smaller.
4 There are some striations, also.

5 MR. BAEZ: Next slide.

6 BY MR. BAEZ:

7 Q What do you have here, sir?

8 A Additional hairs buried in potting soil. Before on
9 the left-hand side, and after on the right-hand side.

10 Q Now, prior to this case beginning, was there a
11 distinction between apparent decomposition and the banding?

12 A Yes.

13 Q Okay. So there were, I guess, under your
14 protocols, a -- a difference that -- you can make a call on
15 what's postmortem banding and what's apparent decomposition?

16 A Well, apparent decomposition is more of a broader
17 category. It includes postmortem banding.

18 Q Okay. And is there a -- a call that can be made
19 that it is postmortem banding or do you just -- or is it
20 always listed as apparent decomposition?

21 A I'm sorry?

22 Q When you have a finding in a report --

23 A Right.

24 Q -- is it always postmortem root banding or
25 always -- let me -- I -- let me rephrase that.

1 Is it always apparent decomposition or are there
2 sometimes decisions made to call things postmortem root
3 banding?

4 **A** In -- in your analysis, at least for me, I would
5 identify it as apparent decomposition even if it was banding
6 and just include in my notes that it was band.

7 **Q** Would that -- would those notes be included in the
8 report?

9 **A** No.

10 **Q** All right.

11 **MR. BAEZ:** Next.

12 **BY MR. BAEZ:**

13 **Q** What do you show here, sir?

14 **A** These are additional hairs buried in potting soil.
15 And it's before on the left-hand side, and after on the
16 right-hand side.

17 **MR. BAEZ:** Next.

18 **BY MR. BAEZ:**

19 **Q** What do you have here, sir?

20 **A** Again, buried in potting soil for a hundred days,
21 before on the left-hand side, and after on the right-hand
22 side.

23 **Q** Okay. Okay. And I think we have one more.

24 What do you have here, sir?

25 **A** Again, buried in potting soil for a hundred days,

1 before on the left-hand side, and after on the right-hand
2 side.

3 Q And this also includes the apparent decomposition?

4 A Yes, correct.

5 MR. BAEZ: All right. I have no further questions,
6 Judge.

7 MR. ASHTON: There's another --

8 MR. BAEZ: There's more?

9 MR. ASHTON: There's more than one Power . . .

10 MR. BAEZ: Okay.

11 BY MR. BAEZ:

12 Q What do we have here, sir?

13 A This is a hair stored in water for 17 days
14 exhibiting some characteristics of apparent decomposition.

15 And -- and some of the characteristics that I'm
16 saying -- when I call it apparent decomposition are not
17 necessarily similar to hairs we see in -- to the
18 decomposition we see in hairs removed postmortem. They're
19 just characteristics of apparent decomposition.

20 Um, this one is one that was identified as banding
21 by examiner one in the study that I conducted.

22 Q Okay. And examiner two did not find it to be?

23 A That's correct.

24 Q Did they know they were working in actual casework
25 or in a study?

1 **A** They knew it was a study.

2 **Q** Okay.

3 **MR. BAEZ:** Next slide, please.

4 **THE WITNESS:** That is a photograph of a hair that
5 examiner two also identified as -- as banded in the
6 initial analysis.

7 **BY MR. BAEZ:**

8 **Q** And the qualifications of these two examiners, are
9 they trainees, are they very experienced?

10 **A** They're -- they're trained hair and fiber
11 examiners.

12 **Q** So they're just like yourself and Ms. Lowe?

13 **A** Yes. They're just as qualified as I am.

14 **Q** Okay. All right.

15 **MR. BAEZ:** Next.

16 **THE WITNESS:** This is a hair, postmortem hair, that
17 was included in the test.

18 **BY MR. BAEZ:**

19 **Q** And what are we looking at here exactly?

20 **A** This is --

21 **Q** What's the history of it, I guess?

22 **A** Postmortem band --

23 **Q** Okay.

24 **A** -- in this area.

25 **Q** And this was taken from a cadaver?

1 **A** Right. Cadaver stored outside, ground surface.

2 **Q** Okay. How long had the person been deceased, this
3 one?

4 **A** I don't know. I -- I could look that up in my
5 notes. I have it in my notes.

6 **Q** Do you have that readily available?

7 **A** Yes.

8 **Q** Go ahead.

9 **A** The person was placed, according to the notes, on
10 January 27th, 2004. And then the hair was collected on March
11 the 5th of 2004.

12 **Q** And --

13 **A** So it's approximately six days [sic].

14 **Q** And they have --

15 **COURT REPORTER:** Sorry?

16 **THE WITNESS:** Approximately -- approximately --
17 over a month.

18 **BY MR. BAEZ:**

19 **Q** Were they completely skeletonized?

20 **A** Um, I don't know. I don't believe so.

21 **Q** And in what atmospheric conditions was this person?

22 **A** I don't --

23 **Q** Were they in cold weather, warm -- warm climate?

24 **A** It was in Tennessee. I don't know exactly what the
25 conditions were.

1 Q Tennessee in January?

2 A Yes.

3 Q Okay.

4 **MR. BAEZ:** Next.

5 **THE WITNESS:** This is another hair of a -- removed
6 postmortem from a cadaver stored outside on the ground
7 surface.

8 **MR. BAEZ:** Next -- let me go back, I'm sorry.

9 **BY MR. BAEZ:**

10 Q Was this the same person, the last slide?

11 A Yes, it was.

12 Q So it's the same person, two different types of
13 postmortem banding characteristics?

14 A Well, they're both postmortem banding.

15 Q But the characteristics appear to be different, do
16 they not?

17 A One appears to be closer to the root than the
18 other.

19 **MR. BAEZ:** Next.

20 **BY MR. BAEZ:**

21 Q What do we have here?

22 A This is another postmortem hair removed from a
23 cadaver stored inside a house.

24 Q Not the same person, is it?

25 A No.

1 Q Okay. And where -- where was this person at, in
2 Tennessee, as well?

3 A Yes.

4 Q And what were the climate conditions?

5 A It was January, again. I don't know if this was an
6 air-conditioned house or not, or a heated house or not.

7 Q January in Tennessee?

8 A Yes.

9 Q And you don't know the conditions about -- the
10 atmospheric conditions?

11 A No. Not -- I don't have that information with me.

12 Q Was it -- so you don't know if this was an
13 abandoned house or somewhere -- some -- fortunately, not a
14 house that somebody lived in?

15 A I would hope not, but I don't know for sure.

16 Q Could it -- was it from a scene?

17 A No.

18 Q Crime scene or --

19 A No, these are all -- these are all tested hairs
20 from the University of Tennessee anthropological center.

21 Q Okay. All right.

22 **MR. BAEZ:** Next slide.

23 **BY MR. BAEZ:**

24 Q What do we have here, sir?

25 A This is a hair removed postmortem from a cadaver

1 stored in a vehicle.

2 Q And what were the conditions of this person? Was
3 this also in Tennessee?

4 A Yes.

5 Q What month?

6 A February to March.

7 Q Okay. And do you know if this -- what the climate
8 conditions of that . . .

9 A No. Just the general month and location.

10 Q Okay.

11 MR. BAEZ: Next.

12 BY MR. BAEZ:

13 Q What do we have here, sir?

14 A Another cadaver stored inside a house in January.

15 Q In Tennessee?

16 A Yes, correct.

17 Q And you don't know whether it was heated,
18 air-conditioned, or what the conditions --

19 A No, I don't.

20 Q -- of the house?

21 MR. BAEZ: Next.

22 BY MR. BAEZ:

23 Q What do you have here?

24 A Another postmortem hair with postmortem banding

25 from a cadaver outside, on the ground surface, in January and

1 February in Tennessee.

2 Q And this is from what conditions again --

3 A Correct.

4 Q -- on the ground surface?

5 A Correct.

6 Q Okay.

7 MR. BAEZ: Next.

8 THE WITNESS: Another hair, postmortem, removed
9 postmortem, from cadaver stored outside on the ground.

10 BY MR. BAEZ:

11 Q And what do we have --

12 A In February, in Tennessee.

13 Q February in Tennessee?

14 A Right.

15 Q Okay.

16 MR. BAEZ: Next.

17 THE WITNESS: Another hair from a cadaver stored
18 outside, on the ground surface, in January, Tennessee.

19 MR. BAEZ: Okay. Next.

20 THE WITNESS: Another hair from a cadaver stored
21 outside, on the ground surface, in January, 2004, and
22 February.

23 MR. BAEZ: Okay. And next.

24 THE WITNESS: Another hair exhibiting postmortem
25 banding from a cadaver stored outside, on the ground

1 surface, in February from Tennessee.

2 MR. BAEZ: Okay. Next.

3 THE WITNESS: Hair removed from a cadaver stored in
4 a vehicle in February and March in Tennessee.

5 MR. BAEZ: Next.

6 THE WITNESS: Another hair from a cadaver with
7 postmortem banding, stored inside a house in January
8 2005.

9 BY MR. BAEZ:

10 Q Okay.

11 Now, sir, is that the end of it or are there --

12 A I believe it is.

13 MR. ASHTON: I think there's one more.

14 MR. BAEZ: Are you going to introduce three
15 PowerPoints?

16 MR. ASHTON: Did you use all three?

17 THE WITNESS: This is -- these are additional --

18 MR. ASHTON: Okay.

19 THE WITNESS: -- hairs, sure.

20 MR. ASHTON: If you feel they're helpful in your
21 explanation, then it's up to you.

22 THE WITNESS: No, I really don't.

23 MR. ASHTON: Okay. Then we'll just use the two.

24 BY MR. BAEZ:

25 Q Now, sir, the climate is the number one factor

1 when -- when you take decomposition into consideration, is it
2 not?

3 **A** It's my understanding that the climate can affect
4 the rate of decomposition. That's really not my area of
5 expertise, but that's -- that's my understanding.

6 **Q** And do you know what type of effect climate has on
7 postmortem root banding?

8 **A** Yes. We have studied that some.

9 **Q** Okay. And what have you studied and what are your
10 findings?

11 **A** Um, we've studied approximately over 20,000 hairs
12 from Tennessee from over 20 individuals. And hairs in warmer
13 or just in general, hairs -- or cadavers in warmer climates,
14 climates, will produce bands earlier than, um, hairs in
15 colder climate, hairs removed in colder climates.

16 **MR. BAEZ:** I have no further questions, Judge.
17 If I can have just a moment?

18 **THE COURT:** You may.

19 (Brief pause.)

20 **BY MR. BAEZ:**

21 **Q** Just a brief . . .

22 Mr. Shaw, all of these hairs are from adults that
23 you have in these PowerPoints, correct?

24 **A** I believe that's true. I don't have all the
25 information with me, but I believe that's correct.

1 Q Okay. And the differences in a child's hair --
2 there are differences between a child's hair and adult's
3 hair, correct?

4 A We can't determine that a hair is from a child or
5 from an adult. Depending on the age, sometimes the hair can
6 be thinner. Sometimes the cuticle can be thinner. But we --
7 we can't say that a hair came from a child by examining, or
8 an adult.

9 Q Do you observe, in your experience, different
10 characteristics in children's hair versus adults?

11 A No, not -- I wouldn't say there are.

12 Q What about that of a young child, a toddler?

13 A A younger child, depending on how young, the hairs
14 can be thinner.

15 Q Okay. And how many children's hairs did you use in
16 this study?

17 A Two.

18 Q Just two hairs?

19 A Two -- I'm sorry, two test subjects.

20 Q Two test subjects?

21 A Yeah. Two -- but -- there was 15 individuals
22 total.

23 Q Okay.

24 A Six hundred hairs total. Of the 15 individuals,
25 two of those were children.

1 Q And were there differences in some of the findings?

2 A No.

3 Q Did you expose the children's hairs to the same
4 conditions that you exposed the ones that showed apparent
5 decomposition?

6 A Yes.

7 Q Including water?

8 A Um, I'll have to check and see.

9 Q Please do.

10 (Brief pause.)

11 No. Um, the -- the children were used in the -- my
12 first -- one child was used in the first four locations. My
13 last four locations study that I did, there was -- there was
14 all adults. So that included immersed in water, buried in
15 potting soil, one of the -- one of the studies in a wooded
16 area and one of the studies in a -- on a lawn.

17 **COURT REPORTER:** I'm sorry, one of the studies on
18 the?

19 **THE WITNESS:** In the grassy area.

20 **BY MR. BAEZ:**

21 Q And none of these subjects, all 15 of them, were
22 ever exposed -- their hairs were never exposed to any type of
23 trash or garbage --

24 A No.

25 Q -- material?

1 **A** Not that I'm aware of.

2 **MR. BAEZ:** No further questions.

3 **MR. ASHTON:** I have no questions on the proffer.

4 **THE COURT:** Mr. Baez?

5 **MR. BAEZ:** Yes, sir. We would renew our previous
6 motions and objections.

7 As to these two different PowerPoints, I think we
8 have an issue of them being cumulative, number one;
9 number two, the conditions are completely different than
10 that of this case. And we would argue that that creates
11 an unfair prejudice.

12 And, in addition to that, we would consider this
13 improper bolstering. To use hairs from a cadaver in
14 Tennessee, in the winter months, of an adult, that shows
15 postmortem root banding, to a case in Florida in the
16 summertime at very early -- what they -- what the State
17 would argue would be very early stages of decomposition,
18 we're talking apples and oranges here, Judge. I think
19 there's no similarity.

20 And it would be improper bolstering. You can't --
21 they're not even matching up the same scenarios. And
22 even if it were, I -- I think -- I think it would be
23 improper bolstering.

24 **THE COURT:** What was the second ground that you --
25 you said cumulative, and you said something else before

1 you got to improper bolstering.

2 **MR. BAEZ:** 403, Judge.

3 **THE COURT:** 403 in what sense?

4 **MR. BAEZ:** It's an unfair prejudice.

5 **THE COURT:** Unfair prejudice in what sense,
6 Mr. Baez?

7 **MR. BAEZ:** Well, we're given this not at the 11th
8 hour, at the last second. We don't have the abilities
9 to conduct an independent study. That study is being
10 introduced, and it's apparent results of a study, and it
11 was specifically designed for this case.

12 **THE COURT:** So your argument is not a 403, your
13 argument is a Sixth Amendment right to confrontation?

14 **MR. BAEZ:** And I would -- I would classify the
15 unfair prejudice of this under 403 as well, Judge. I --
16 I think there are multiple -- there are multiple attacks
17 on this -- on this study and this -- and these
18 PowerPoints to be used.

19 If -- if we were talking about -- if the witness
20 wants to talk about generic -- show one or two
21 photographs as the previous examiner did to help show
22 the jury to understand the differences, that -- that we
23 understand. But to do a complete and entire study with
24 two PowerPoint presentations with approximately 30
25 photographs, I . . . I -- I see numerous issues with

1 this, Judge.

2 **THE COURT:** Mr. Shaw, when was this study that you
3 are about to testify to provided to the State of
4 Florida?

5 **THE WITNESS:** It was in, um, March of 2000
6 and . . . 2011 that we told the State and the defense
7 together that we had conducted a study.

8 **THE COURT:** What information was provided to the
9 State and what information was provided to the defense,
10 if you know, concerning this study, and when, if you
11 know, sir?

12 **THE WITNESS:** Oh, I'm sorry. Um, we told them at
13 that time -- actually, I wasn't present, it's Ms. Lowe
14 that informed them that we had been doing a study at
15 that time. And that's all, um . . . I don't know
16 what -- what she said at that time.

17 **THE COURT:** Was the study ever provided to the
18 State of Florida in a written format or a digital
19 format?

20 **THE WITNESS:** It was provided in a hard copy, the
21 written format, along with these photographs.

22 **THE COURT:** Do you recall whether the photographs
23 was provided to the State in black and white or in
24 color?

25 **THE WITNESS:** They were provided in color.

1 **THE COURT:** Do you recall when that was provided to
2 the State of Florida? I know you said they were advised
3 in March of 2011.

4 **THE WITNESS:** Right.

5 **THE COURT:** I'm trying to ascertain when that
6 written study and the color photographs were provided to
7 the State.

8 **THE WITNESS:** Um, we -- we had a deposition in
9 early May where the photographs, at that point, were
10 discussed, and were forwarded on to both State and the
11 defense.

12 **THE COURT:** Okay.

13 **THE WITNESS:** The written portion was more recent.
14 I don't -- I don't recall exactly when that entire case
15 packet was -- was FedEx'd to the State.

16 **MR. ASHTON:** I can assist the Court in that, if you
17 like.

18 **THE COURT:** One more question.

19 What you provided to the State in terms of
20 photographs, were they in color or were they in black
21 and white?

22 **THE WITNESS:** They were emailed to the Orlando
23 field office.

24 I don't know how they were printed off.

25 **THE COURT:** Okay. But were they provided in color

1 or were they in black and white? Or if you don't know,
2 you don't know.

3 **THE WITNESS:** I emailed them, they were emailed in
4 color.

5 **THE COURT:** Okay. All right. Mr. Ashton, can
6 you . . .

7 **MR. ASHTON:** I can, sir.

8 The -- as the witness indicated, in March of this
9 year we were informed, the State and the defense
10 simultaneously, by Paula Wolff, Assistant General
11 Counsel with the FBI, about the existence of the study.

12 There was a telephone conference between myself,
13 Mr. Baez, Ms. Wolff and Ms. Lowe in which the study was
14 in general described. Mr. Shaw was set for deposition,
15 which deposition was taken on May the 3rd by Ms. Sims
16 and myself.

17 During that, there was discussions about production
18 of the photographs from the study. An arrangement was
19 made over numerous emails over the succeeding weeks
20 between Ms. Sims and Ms. Wolff, copied to me, about
21 viewing the photographs.

22 My understanding from these emails was that the
23 photographs in question, or requested, were sent by
24 email to the local FBI field office, and that counsel
25 was allowed to come to the office and view the

1 photographs -- I was not there -- presumably in color,
2 but Ms. Sims can speak to that, whether they were in
3 color or not.

4 There was additional requests to view additional
5 photographs. I believe I was involved in the emails,
6 but not really participating. Ms. Wolff, by the way, is
7 here, General Counsel, if the Court wants to have her
8 represent the FBI in this matter.

9 That -- I understand that Ms. Sims made another
10 trip to the FBI field office, I think on the weekend.
11 They -- they opened it up for her to look at the
12 photographs.

13 At some point through this negotiation with the
14 FBI, they agreed to produce copies of some reports,
15 documents and photographs, which they sent to me, which
16 we then copied and passed along in discovery to
17 Ms. Sims.

18 The -- the photographs we have are in color. This
19 is the first I've heard that theirs were not. If
20 that's -- if that's the case, I was not aware of that
21 until just a moment ago.

22 But as far as I'm aware, the FBI has gone to great
23 lengths to accommodate the defense in allowing them to
24 see the photographs, to understand the full nature of
25 this as-yet-incomplete research project.

1 And I believe the written form that counsel -- that
2 the witness was discussing was provided to the defense,
3 I want to say, early part of last week. But my copy
4 doesn't actually have a date on it.

5 **COURT REPORTER:** I can't hear you, Ms. Sims.

6 **THE COURT:** Ms. Sims -- if you're gonna -- both
7 sides, if you're gonna talk, you need to turn the
8 microphones on if you --

9 **MS. SIMS:** I'm sorry, Your Honor.

10 **THE COURT:** Okay.

11 **MS. SIMS:** My understanding, I wrote down that it
12 was received on the 9th, which was last week. And we
13 did not receive all of the PowerPoints. And what we
14 received were black and white photographs that aren't
15 particularly clear.

16 **MR. ASHTON:** But there were -- and there were four
17 additional photographs that apparently were requested
18 after that packet was received. Those were provided to
19 me last night. I provided those four to Ms. Sims this
20 morning by leaving them on the table. They are color
21 copies. Again, I was not aware until a moment ago
22 that -- that the copies given were not acceptable. I
23 was never informed until just now.

24 **MS. SIMS:** Your Honor, we were never provided color
25 copies of anything until today. What happened on May

1 the 3rd was I took Mr. Shaw's deposition. I had
2 previously requested all photographs.

3 **THE COURT:** Slow down, Ms. Sims.

4 **MS. SIMS:** Okay. I'm sorry.

5 I had previously requested that all photographs
6 having to do with the experiment be brought to the
7 deposition. I was not advised that they would not be
8 all of them produced.

9 And -- but I guess two-thirds through the
10 deposition, some of the photographs were sent to the
11 field office so that I could look at them. But I was
12 then told at that deposition that Mr. Shaw did not have
13 all of the photographs.

14 I went to the FBI to look at the color photographs
15 that were provided that I was not permitted to copy and
16 looked at the report that I was not permitted to copy,
17 and there afterwards advised that there were additional
18 photographs that I believe Mr. Shaw took with his cell
19 phone.

20 So I went back to the FBI. I was still not
21 permitted to make color copies of the photographs, take
22 copies of anything, and when I requested the ability to
23 speak to Mr. Shaw through Ms. Wolff, that was not able
24 to be done.

25 So I have not had the opportunity to cross-examine

1 Mr. Shaw with regard to the actual data, the hard copies
2 of the paperwork involving this experiment, to determine
3 if it meets *Frye* standards.

4 And I would object based on *Frye* issues, as well,
5 because that has not been established. This is an
6 experiment, and it hasn't been established that the
7 methods are reproducible.

8 But I did not -- I was not -- never given any
9 copies for me to keep or take, and I requested multiple
10 times --

11 **MR. ASHTON:** That's correct. The FBI indicated
12 that because this was an ongoing research project, that
13 they could not release unpublished data. But they have
14 gone to incredible lengths to allow counsel to view
15 these photos.

16 And I think -- I think counsel has not indicated
17 that there's any photograph here she hasn't seen through
18 this process. And I think that is probably an essential
19 issue. I believe she has seen all of these photographs.
20 So at any rate, that's all I have unless the Court wants
21 to hear from General Counsel.

22 **MR. BAEZ:** I would just conclude --

23 **THE COURT:** No, just one second.

24 Mr. Ashton, before Mr. Baez, would you address the
25 issue of improper bolstering?

1 **MR. ASHTON:** Your Honor, the -- an issue has been
2 raised by the defense through the testimony and
3 cross-examination of Ms. Lowe, as to whether this
4 postmortem artifact can be created by something other
5 than the contact of the hair with a decomposing human
6 body. This is simply further scientific research to
7 answer that question.

8 Bolstering, as I understand the term, would refer
9 to an expert using the -- a published article by someone
10 else during their direct testimony to bolster their own
11 opinion.

12 This is an example of original research by this
13 witness to answer the scientific question of whether
14 this particular postmortem artifact can be created by
15 something other than its contact with a decomposing
16 human body.

17 So I don't believe that this would constitute
18 bolstering, which -- part of bolstering is a hearsay
19 issue. You know, you're talking about what someone else
20 says. This expert is talking about his own research and
21 the outcomes of that research thus far.

22 **THE COURT:** Mr. Baez?

23 **MR. BAEZ:** Yes. We -- we brought this to the
24 Court's attention back in March. And we had a concern
25 then. And the concern was that we find ourselves in the

1 middle of trial, and an expert takes the stand, and
2 we're talking about things that we haven't had the
3 ability to have an independent examination of under
4 3.220 -- I believe 1(j).

5 And here we are, towards -- near the end of the
6 State's case, where we're talking about a study that we
7 have done every single thing we can, going to the FBI
8 office on Saturday. And the FBI has been very
9 accommodating. There's no doubt about that. There's
10 been absolute and complete 100 percent cooperation from
11 the FBI.

12 However, that still doesn't take us away from we
13 picked a jury in this case, we've dealt with opening
14 statements, as well as numerous witnesses,
15 cross-examination of another witness, and then here we
16 are talking about -- and showing photographs from --
17 approximately 30 photographs of a study that we had
18 limited exposure to.

19 That's where we are.

20 Now, if -- if that's fair, I -- I'll accept the
21 Court's ruling. But I think under the multiple areas
22 that we've -- that we've laid out, how we've brought it
23 to the Court's attention, how we've been trying to
24 stay -- even in the middle of jury selection, and prep,
25 and preparing for trial, and actually trying this case,

1 we have been dealing with the FBI to try and get caught
2 up so the Court cannot come to us and say, well, you had
3 an opportunity to do something and you didn't do
4 anything about it. In fact, it's the contrary. We have
5 gone -- we have -- I haven't been able to attend these
6 but, fortunately, Ms. Sims has. But these are the steps
7 that we've taken.

8 And, again, we're -- we're near the end of the
9 State's case, and we get this -- this stuff at the last
10 minute. This is something that is not peer-reviewed.
11 This is a -- a study that was specifically designed for
12 this case.

13 And if the Court wishes to inquire with the
14 witness, this began after the deposition was taken of
15 Mr. Shaw in this case when we went to Washington,
16 Mr. Ashton and myself.

17 **MR. ASHTON:** My I add two points, Judge?

18 **THE COURT:** You may.

19 **MR. ASHTON:** If Mr. Baez is done.

20 The first point is that the FBI had offered to
21 transmit these materials to the FBI field office in
22 the -- in the location of the defense's expert so that
23 they could examine it. And I understand that the
24 defense did not take them up on that. So there has been
25 an opportunity for their expert to examine this

1 material.

2 Second is this -- and we can take -- and we will
3 get testimony from the witness on this -- this study was
4 contemplated before the deposition in this case. He
5 will acknowledge that obviously the deposition spurred
6 him on to get started with it, or words to that effect.
7 But this wasn't -- was started because of an article
8 raising the issue, and indicating that additional
9 research needed to be done. So to say it was done for
10 this case is absolutely not true, though the case did
11 have some inspiration for it.

12 That's all I want to say.

13 **THE COURT:** Anything else from the defense?

14 **MR. BAEZ:** Nothing further, Judge.

15 **THE COURT:** Okay. The defendant in this case is
16 charged by indictment with the crimes of murder in the
17 first degree, aggravated child abuse, aggravated
18 manslaughter of a child, and four counts of providing
19 false information to a law enforcement officer.

20 The State has indicated by notice filed that they
21 seek the ultimate sanction in this case, death by lethal
22 injection upon the defendant if the defendant is
23 convicted of the crime of murder in the first degree.

24 Rule 3.220 specifically provides the State of
25 Florida with the specific obligation to provide certain

1 things to the defendant. It is not the FBI's sole
2 responsibility to provide particular items.

3 The Sixth Amendment to the United States
4 Constitution made applicable to the states, via the
5 Fourteenth Amendment, provides that in all criminal
6 prosecutions, the accused shall enjoy the right to
7 confront the witnesses against him or her.

8 There was no objection lodged at Mr. Shaw's
9 testimony dealing with the particular study. But the
10 Court does find it troubling that the State, at the
11 ninth hour, provides a PowerPoint with color photographs
12 that was not provided to the defense.

13 Therefore, the Court will not permit the
14 utilization of the PowerPoint since it was not provided
15 to the defense. Since there was no objection to his
16 testimony thus far to the study, and he has testified to
17 his study, then the record will stay as it is. But the
18 Court will not permit the utilization of the PowerPoint.

19 Simply, we cannot simply say that it's the FBI's
20 study, but -- and that they have a right to disseminate
21 it when they want to. Which may be true. But if they
22 want to disseminate the study when they want to, don't
23 expect to use it in a court of law when they want to or
24 when you want to.

25 It is the State of Florida, who is the proponent

1 and will be presenting this evidence, and it is the
2 State of Florida's obligation, not the Federal Bureau of
3 Investigation, to decide when they want to let something
4 go and when they don't want to let something go,
5 particularly when one wants to initiate the ultimate
6 sanction given by law.

7 Therefore, the Court will sustain the objection to
8 the use of the PowerPoint.

9 We will take a five-minute recess so the attorneys
10 and court reporter will refresh themselves.

11 But since there was no objection to that particular
12 testimony, then you can continue. But we will not allow
13 the PowerPoint to be used since it is quite evident that
14 depositions were taken dealing with the study.

15 We'll be in recess for five minutes.

16 **MR. ASHTON:** May I ask one point of clarification?

17 **THE COURT:** Yes, sir.

18 **MR. ASHTON:** So the Court is indicating none of the
19 photographs that are contained in the PowerPoint should
20 be used?

21 **THE COURT:** Right. Now --

22 **MR. ASHTON:** Okay. That's fine. I understand.

23 **THE COURT:** -- the flip side to that, now, is if
24 the defense opens the door and starts talking about,
25 where are the photographs, then that may reopen --

1 **MR. ASHTON:** Thank you, sir.

2 **THE COURT:** -- the issue for the Court to let it
3 in. So you -- you cannot use a shield and turn it into
4 a sword.

5 We'll be in recess for five minutes.

6 (A short recess was taken.)

7 **THE COURT:** You may be seated.

8 **MR. BAEZ:** Your Honor, may I just clarify something
9 for the record?

10 **THE COURT:** Yes.

11 **MR. BAEZ:** I would note for the record at 9:06 a.m.
12 I did object. And in addition to that, I also renewed
13 our previous motions and objections under *Frye*, as well.

14 I believe in March when we had this issue come up,
15 we also objected, and I just wanted to clarify that for
16 the record, Judge.

17 **THE COURT:** Okay. Your previous objections that
18 you objected dealt with *Frye*. And we had a hearing on
19 the *Frye* issue. The basis of my ruling -- you made a
20 couple more additional objections. They were
21 cumulative, 403, which was undue prejudice, and improper
22 bolstering.

23 The Court's ruling was based upon the fact of a
24 Sixth Amendment issue dealing with an exhibit that you,
25 one, had not seen; two, that the items that were

1 provided to you were provided to you in black and white,
2 and these are all color exhibits, where color is not a
3 subissue; that in order to intelligently evaluate these
4 particular exhibits, black and white photographs would
5 be patently unfair. So the Court struck the particular
6 exhibit.

7 You have had an opportunity to take the deposition
8 of the FBI agent. You've had an opportunity to look at
9 the study, I presume, and you've had other numerous
10 opportunities to do that.

11 You have not outlined, nor pointed out, anything
12 that this gentleman, Mr. Shaw, has testified to, that
13 you did not know in deposition, or you could not deal
14 with this particular issue of postmortem hair banding.
15 So that was my ruling.

16 This Court felt that this exhibit, even though it
17 was a demonstrative exhibit, it did put the defense at a
18 severe disadvantage by not having an opportunity to view
19 it ahead of time.

20 So that's why, quote, one, I overruled the
21 objection to the testimony about the study. But I
22 disallowed the use of the exhibit. You're not saying
23 now that you did not have an opportunity to take
24 Mr. Shaw's deposition?

25 **MR. BAEZ:** No, sir.

1 **THE COURT:** And is there anything that he has
2 testified to that's not contained in his deposition?

3 **MR. BAEZ:** The only issue, Judge, is that we could
4 not depose him after we had viewed whatever was turned
5 over to us on . . .

6 **THE COURT:** And if you had been given that
7 opportunity, what information you would have hoped to
8 glean from an additional deposition that you do not
9 already know? You can consult with your colleagues.

10 **MR. BAEZ:** If I can have a moment?

11 **THE COURT:** You may.

12 **MR. BAEZ:** That's just it, Judge, we don't know
13 what we would have gotten from him. We want to be
14 able -- we wanted to be able to inquire based on what we
15 were observing and ask him more questions about the
16 study.

17 **THE COURT:** Okay. The problem with that is what we
18 don't know is a wide universe of things that we don't
19 know.

20 As both sides, the State and the defense, you have
21 to be able to show some type of prejudice, going back to
22 *Brady versus Maryland* and all the line of cases dealing
23 with not having information, a Richardson inquiry, you
24 must be able to show a prejudice as a result. It's not
25 that I don't know. Because I don't know translates into

1 nothing.

2 **MR. BAEZ:** Well, I could certainly say that we
3 wouldn't have been able to duplicate any of -- of the
4 issues that would come up with this study with our
5 own -- with our own independent expert. That -- that
6 would certainly be one that I don't think we could
7 argue.

8 **THE COURT:** If we go back in time to when we were
9 talking about this study originally, one of the things I
10 indicated was that unfortunately, throughout this
11 country, and throughout the world, there are scientific
12 studies that spring up and results that occur each and
13 every day.

14 So the possibility that you could not replicate or
15 duplicate is not a basis for an objection. Now, I know
16 of no case that stands for the proposition that you've
17 just cited. Now, if there's one, I'm all ears to listen
18 to it.

19 **MR. BAEZ:** Well, sir, I would think that there's
20 very limited circumstances where something like this
21 would occur at the end of State -- of the State's case.
22 So I would probably agree with that assessment.

23 **THE COURT:** Okay. So that was my ruling. And I
24 apologize for not making it clearer earlier. But that
25 was the basis of my ruling.

1 Anything else, folks, before we continue?

2 **MR. ASHTON:** Not from the State of Florida.

3 **THE COURT:** Okay. Let's return the jury.

4 (Jury entered the courtroom.)

5 **THE COURT:** State recognize the presence of the
6 jury?

7 **MR. ASHTON:** Yes, sir.

8 **THE COURT:** Defense?

9 **MR. BAEZ:** Yes, sir, we do.

10 **THE COURT:** You may continue, Mr. Ashton.

11 **DIRECT EXAMINATION (CONTINUING)**

12 **BY MR. ASHTON:**

13 **Q** Mr. Shaw, we were discussing the study that you
14 have performed.

15 Let me go back and ask you, what -- what caused you
16 to become interested in doing a study like this? How -- what
17 was the inspiration for that?

18 **A** Um, it really was started because of a thesis that
19 I came across at John Jay College where they had taken hairs
20 from living individuals and placed them in soil and in water
21 and had gotten decomposition in those hairs at the root end.
22 Or apparent decomposition.

23 And it was suggested in that study that, um, these
24 hairs -- additional research was needed and that these hairs
25 be compared or hairs like them be compared to postmortem

1 hairs. And so that's what I did.

2 Q So the thesis study found some sort of artifact in
3 hairs in live people in those environmental conditions but
4 suggested that further studies needed to be done comparing
5 them to actual postmortem hairs?

6 A That's correct.

7 Q Now, did this particular case -- your involvement
8 in this particular case, have any -- you know, give you any
9 additional interest in doing this study?

10 A Um, I think I -- I probably would have done the
11 study anyway, just not when I did. I think it was more of a
12 priority because of this case.

13 Q Because of the issues in this case?

14 A Correct.

15 Q Now, was the purpose -- if you can put it in one
16 line for us, what was the purpose of the study? What were
17 you trying to figure out?

18 A I was trying to recreate banding in hairs from
19 living individuals.

20 Q Now, in -- do hairs even -- that are not connected
21 to living individuals still decompose in some respect?

22 A Yes. They can if they're exposed.

23 Q Um, was the purpose to determine whether this
24 particular artifact of decomposition could come from a live
25 person's hair? Was that what you were looking for?

1 **A** That's correct.

2 **Q** And, again, what -- how did you get the hairs for
3 the study?

4 **A** I went through an approval process to -- to collect
5 the hair samples, and then I asked for volunteers to
6 volunteer their hair samples.

7 **MR. BAEZ:** Judge, I'm going to object and request
8 that this testimony be limited. Lack of disclosure. We
9 don't have a copy of what he's testifying about.

10 **THE COURT:** Objection overruled.

11 **BY MR. ASHTON:**

12 **Q** Again, what was the -- how many individuals did you
13 take hair samples from?

14 **A** I took hair samples from -- well, I received hair
15 samples from 18 individuals. I used 15 in this study.

16 **Q** And were these hairs that were actually pulled from
17 the -- the volunteer individuals?

18 **A** Yes, correct.

19 **Q** What were the very -- what were the gender
20 distribution of these individuals?

21 **A** Um, males and females.

22 **Q** And what were the age ranges of the individuals?

23 **A** Um, the youngest was three. The oldest was, I
24 believe, 53. I may have to check. It's 52 or 53.

25 **Q** In their 50s?

1 **A** Yes.

2 **Q** Okay. And what variety of environmental conditions
3 did you expose these hairs to in order to do this study?

4 **A** Indoors on a windowsill, indoors buried in potting
5 soil with plants that were watered and fertilized, indoors
6 submerged in water, outdoors in an area exposed to sunlight,
7 outdoors in a wooded area not exposed to sunlight; and in
8 three different vehicles, in the trunk of a vehicle that was
9 used during the time period, underneath the seat of a second
10 vehicle that was also used during the time period, and on
11 the -- in the trunk of a third vehicle that was not used
12 during the time period and was parked, remained stationary
13 throughout the time period and was parked in direct sunlight.

14 **Q** When you say used during the time period, you mean
15 someone's vehicle that was used on a daily basis?

16 **A** Correct. Someone continued about their normal use
17 with the hairs in their location.

18 **Q** And how did you place the hairs, isolate them, so
19 that they would be undisturbed for the study, like in the
20 cars, for instance?

21 **A** Um, I used tape to, um -- to fold over the distal
22 ends, the tip ends, of the hairs, leaving the proximal or
23 root end of the hairs exposed. And then I gave these hairs
24 to individuals to place in the vehicles and -- and told them,
25 you know, not to clean their vehicle or anything, but just

1 stick -- place these hairs as they are, as their vehicle is,
2 or whatever the conditions, however they exist.

3 Q All right. And did you check the hairs at
4 intervals as to each environmental condition or just at the
5 end?

6 A I -- I would check sort of an earlier time period,
7 so around one to four weeks.

8 Then I would check at a longer time period.

9 So the ones collected at a shorter time period were
10 collected and examined. There were additional hairs that
11 were not disturbed, and those were placed between three
12 months and approximately seven months.

13 Q Is the -- the difference between a -- what we --
14 you refer to as a postmortem band -- banding, and other types
15 of decomposition a subtle difference?

16 MR. BAEZ: Objection. Leading.

17 THE COURT: Overruled.

18 THE WITNESS: In my opinion, it's -- it's an
19 obvious difference.

20 BY MR. ASHTON:

21 Q And in your study, when -- when you examined all of
22 these hairs from all of these different environmental
23 conditions, from live people, did you find any that, in your
24 opinion, would qualify as postmortem banding?

25 A No, I did not.

1 Q Now, you discussed a blind study that you did of --
2 of some of these hairs and the outcome of that. Tell us
3 about that.

4 A Yes, I included all the hairs with any possible
5 change at the root end into this test, as well as hairs known
6 to be removed from deceased individuals. They were also
7 included in the same test. And the test was given to two
8 different examiners who were asked to identify any hairs
9 exhibiting characteristics of apparent decomposition with
10 postmortem banding.

11 They were given three answer sheets total, an
12 answer sheet each for their initial analysis, and then a
13 confirmed result answer sheet where they discussed their
14 initial analysis to come up with one confirmed result.

15 In examiner one's initial analysis, he correctly
16 identified all the postmortem band hairs, but also identified
17 an antemortem hair to one of the hairs in this study as
18 banded.

19 Q Let me ask you a question before you go on.

20 A Yes.

21 Q So this examiner number one picked out one of the
22 hairs that was from a live person as initially indicating it
23 might have postmortem banding; do I have that right?

24 A Correct.

25 Q Okay. And how about the other examiner?

1 **A** The second examiner also correctly identified all
2 the postmortem banded hairs and also, in his initial
3 analysis, identified one of the antemortem hairs in this
4 study as -- as banded.

5 **Q** But did he -- did he identify the same one that the
6 first examiner had identified?

7 **A** No. They were -- they were different hairs, stored
8 under the same conditions, but different hairs.

9 And so in their final -- when they discussed and
10 they come up with one confirmed result, they excluded those
11 two hairs.

12 **Q** Now, that -- that coming together, that
13 conferencing, is that something that examiners would do in a
14 real case, if they disagreed on a -- a call?

15 **A** Yes.

16 **Q** So -- so that, basically, did that imitate the
17 real-world environment of how examiners come to decisions?

18 **A** It's similar.

19 **Q** So in the end, they agreed that neither was
20 postmortem banding; is that --

21 **A** That's correct.

22 **Q** Now, in this study, did you find hairs with
23 apparent decomposition?

24 **A** No.

25 **Q** And there's -- is postmortem banding sort of a

1 specific subset of various artifacts of decomposition of a
2 hair?

3 A Yes, it is.

4 Q So while you found decomposition in the hairs, did
5 you find any that had postmortem banding?

6 A Not in this study, no.

7 Q Now, did you also provide, bring with us today, a
8 copy of a photograph, a digital copy of a photograph, of the
9 actual Q12 hair that you examined as a confirming examiner
10 with Ms. Lowe back in 2008?

11 A Yes.

12 MR. ASHTON: At this time, Your Honor, move into
13 evidence State's Exhibit QM.

14 THE COURT: What says the defense?

15 MR. BAEZ: No objections.

16 THE COURT: Be received in evidence as State's
17 numbered?

18 THE CLERK: 301.

19 MR. ASHTON: May I publish, Your Honor?

20 THE COURT: You may.

21 (The exhibit was published to the jury.)

22 BY MR. ASHTON:

23 Q Mr. Shaw, you see the -- State's Exhibit 301 that's
24 on the screen in front of you?

25 A Yes, ma'am.

1 **Q** And is that the photograph of the particular hair
2 which is designated Q12 in this case?

3 **A** Yes.

4 **MR. ASHTON:** May I publish it?

5 **THE COURT:** You may publish it.

6 (The exhibit was published to the jury.)

7 **BY MR. ASHTON:**

8 **Q** Okay. Now that we have the actual photograph in
9 front of us, can you show the jury the postmortem band that
10 you saw in this -- in this case and on your confirming
11 examination?

12 **A** Sure. The band is in-between these two lines. So
13 that dark, opaque area, above the root.

14 **Q** And is that a fairly classic example of postmortem
15 banding?

16 **MR. BAEZ:** Objection, Judge, improper bolstering.

17 **THE COURT:** Overruled.

18 **THE WITNESS:** It's what I would identify as -- as
19 postmortem banding, yes. It's a band above the root,
20 root bulb.

21 **BY MR. ASHTON:**

22 **Q** And, again, it's -- that artifact we see in this
23 photograph was -- was that seen in any of the photographs of
24 your -- in your study involving live persons?

25 **A** No, it was not.

1 **MR. ASHTON:** No further questions.

2 **MR. BAEZ:** Objection. Move to strike the last
3 question and answer.

4 **THE COURT:** Motion to Strike will be denied.
5 Cross-examination.

6 **MR. BAEZ:** If I could have just a moment, Judge?

7 **THE COURT:** You may.

8 **MR. BAEZ:** May it please the Court?

9 **THE COURT:** You may proceed, Mr. Baez.

10 **MR. BAEZ:** Mr. Ashton.

11 Good morning, ladies and gentlemen.

12 **THE JURY:** Good morning.

13 **CROSS-EXAMINATION**

14 **BY MR. BAEZ:**

15 **Q** Good morning, Mr. Shaw.

16 **A** Good morning.

17 **Q** How are you, sir?

18 **A** Very good.

19 **Q** I want to ask you just a few questions about, first
20 off, the hair that you observed in this case, the Q12, the
21 one we saw in the photograph, you testified that when you got
22 the 59, Q59, which was the hair mat, from Suburban Drive,
23 that the characteristics were not similar, correct?

24 **A** What I -- what I was speaking of is the
25 characteristics of the root portion itself. I did not do a

1 side-by-side comparison of the root portions. But the hair
2 from the trunk had root material below the band. The hairs
3 in the hair mass had a dark band just above the end of the
4 root, but it had more of a brush-like -- what I would
5 classify as a brush-like appearance to it.

6 Q So it was a different appearance to you?

7 A Yes.

8 Q And that's why you testified that you would not say
9 it's similar?

10 A Speaking just about the root portions, that's
11 correct, they were dissimilar.

12 Q Okay. And when you observed -- and you did this
13 study, you were prompted to do it based on the thesis from
14 John Jay College, the graduate student, correct?

15 A That's correct.

16 Q And this study found live people to have apparent
17 decomposition and postmortem root banding, did it not, from
18 live people?

19 A No, they did not make that conclusion. They
20 referred to some of their changes as fraying, darkening. And
21 they did refer to some of their changes as banding, but they
22 indicated it was a band closer, further down into the root,
23 so closer to the end of the root than -- than postmortem is
24 observed.

25 Q Okay. And that would be the one you would find

1 similar from -- that description would best fit the
2 description of the Q59 sample that you have examined?

3 A Um, it -- it's closer to that. But what -- what
4 they were seeing as decomposition in the actual root material
5 itself. The hair mass did not have much of any root material
6 remaining. It was -- it was mostly just a shaft, the band
7 just above the end of the hair.

8 Q Now, the study that you have you were -- and from
9 what you've also seen in your experience, you've seen
10 darkening near the root or actually on the root, correct,
11 from live people?

12 A In this study, yes. Down -- down into the root,
13 root bulb, yes.

14 Q And you've also seen it further up the hair,
15 correct?

16 A We've seen striations further up the hair.

17 Q Okay. And I -- I know in your testimony you claim
18 that the difference was -- is obvious between what you call
19 apparent decomposition and postmortem root banding, right?

20 A Correct. Well, I'm sorry. Apparent decomposition
21 is -- is an umbrella of different types of -- of
22 decomposition that we see. As far as apparent decomposition
23 from -- removed from individuals after they have deceased,
24 postmortem banding is one of the types of apparent
25 decomposition that we see.

1 Q It's a broader term?

2 A Apparent decomposition is a broader term?

3 Q Yes.

4 A Yes, correct.

5 Q And that's what Ms. Lowe indicated in her report,
6 that there was apparent decomposition, correct?

7 A Correct.

8 Q Okay. And the -- you had mentioned that the
9 differences, of course, are obvious to you.

10 A Yes.

11 Q Okay. But they weren't quite obvious to the
12 examiners that -- that you -- that assisted you in this
13 study, correct?

14 A Correct. In their initial analysis, they did
15 identify one of the antemortem hairs each as -- as banded.

16 Q So what we're really talking about, when you look
17 at some darkening, and let's -- let's take this step by step,
18 you get a hair, you inspect it under a microscope, correct?

19 A Correct, I examine it using a microscope.

20 Q And you make a call, you make a decision, you
21 give -- you give your opinion?

22 A Correct. We examine the hair and the
23 characteristics that are present, and based on our training
24 and our experience, we reach conclusions.

25 Q Okay. And when these two different examiners, on

1 two different hairs, made -- gave their opinion, they were
2 wrong?

3 A Correct, they did commit errors.

4 Q Okay. And when we say they were wrong, we're
5 really just saying that they said what was banding is
6 different than what you say is banding, correct?

7 A No, that's -- that's incorrect. They realized
8 between themselves they made errors in their initial analysis
9 and were able to exclude through -- with the confirmed
10 results were able to exclude those two hairs.

11 Q Let me see if I can -- redo the question. Because
12 I'm not certain I asked you this correctly.

13 MR. ASHTON: Objection as to counsel's commentary.

14 THE COURT: Sustained. Rephrase your question.

15 BY MR. BAEZ:

16 Q Let me rephrase this, sir.

17 A Sure.

18 Q You don't know if postmortem banding is exclusively
19 from people who are deceased, correct?

20 A That's correct.

21 Q And you could never testify in a court of law to
22 such a fact?

23 A That's correct.

24 Q Okay. So when someone says, this is postmortem
25 root banding, they're not saying it's from a dead person,

1 correct?

2 **A** That's correct, no, not exclusively.

3 **Q** Okay. So that's what I meant when I said the
4 person who made the call, they were wrong, according to what
5 you consider postmortem root banding?

6 **A** Well, not just what I consider postmortem root
7 banding, but also the two of them. I mean, once they did
8 initial analysis and discussions, they excluded those hairs.

9 **Q** Okay. Let the -- let me take this step by step.
10 There's examiner A and examiner B, correct?

11 **A** Correct.

12 **Q** And these are people who are just as qualified as
13 you are?

14 **A** Yes, that's correct.

15 **Q** They have the same training you go through?

16 **A** That's correct.

17 **Q** And they have the same amount of experience as you
18 do?

19 **A** No.

20 **Q** More?

21 **A** Less.

22 **Q** Less. Okay.

23 And why did you choose someone for your study with
24 less experience?

25 **A** They were two examiners that were not involved in

1 my initial analysis of -- of these hairs.

2 Q Okay.

3 A So --

4 Q Sorry. And they have observed the same
5 characteristics in other hairs?

6 A I'm sorry, can you clarify that?

7 Q They have -- examiner A and examiner B have both
8 seen apparent decomposition in hairs? Is that a yes?

9 A Yes.

10 Q Okay. And they've also seen what is called
11 postmortem banding hairs?

12 A Yes.

13 Q So when examiner A inspected the hair and found
14 postmortem root banding, his opinion from that inspection is
15 different from what you would say is postmortem root banding?

16 A In that initial analysis, that's correct.

17 Q Okay. And when examiner B did the examination and
18 found postmortem root banding, his opinion is different than
19 what your opinion would be?

20 A Correct. In that initial analysis, that's correct.

21 Q Okay. Now, this is still a very ongoing area of
22 forensic science, is it not?

23 A There's still research being done. I mean, I'm
24 conducting research myself. It's -- it's pretty
25 well-established, um, discipline. But it's mostly, for the

1 most part, based on experience, experience of hair examiners
2 in observing hairs that are known to be from deceased, hairs
3 known to be from living individuals and noticing these
4 differences.

5 Q Now, you've never testified in a court of law about
6 postmortem root banding, have you, sir?

7 A I have not.

8 Q And this is your very first time in the United
9 States testifying to such a thing?

10 A That's correct.

11 Q Okay. And when you -- after -- you submitted a
12 deposition in this case, correct?

13 A I did.

14 Q I was present?

15 A Yes.

16 Q And Mr. Ashton was present?

17 A Yes.

18 Q And this occurred in Washington, D.C.?

19 A Yes.

20 Q Okay. And subsequent to us taking your deposition,
21 you submitted a -- a -- for an approval of a validation study
22 of postmortem root banding, did you not?

23 A That's correct.

24 Q And in that submission, you requested approval for
25 this project to be expedited?

1 A Yes, that's right.

2 Q And that is in order for it to be complete before
3 trial?

4 A Yes, correct.

5 Q And this was subsequent to you giving your opinion
6 in this case?

7 A It was after the deposition.

8 Q Yes.

9 And after also reports that you submitted in this
10 case?

11 A Yes, that's correct.

12 Q So to sum it up, you gave -- you wrote your report,
13 correct?

14 A (Nods head.)

15 Q Is that a yes?

16 A Correct.

17 Q You got to say yes for the court reporter.

18 A Sure.

19 Q And you testified under oath?

20 A Correct.

21 Q And then you did a validation study for postmortem
22 root banding?

23 A That's correct. We -- I mean, the -- the
24 postmortem root banding was already what I would consider
25 valid. It was based primarily on experience. Not a lot of

1 research days have gone into studying the effects of
2 environmental hairs on antemortem. So that's why I did look
3 into that especially after coming across the thesis from John
4 Jay College.

5 Q And a huge part of that, what's established, is
6 that you cannot say postmortem root banding comes from a dead
7 person?

8 A That's correct.

9 Q And from what you observed, even in your own study,
10 after you gave your opinions in this case, was that
11 subjecting hairs to different environments can alter the
12 appearance of a hair to include that -- to include darkening
13 on the hair, correct?

14 A You can get darkening on hair, yes.

15 Q To the point where even a trained forensic examiner
16 would call it postmortem root banding?

17 A That's what occurred in their initial analysis,
18 correct.

19 Q Now, again, what you received in this case was only
20 one hair?

21 A I'm sorry?

22 Q From -- excuse me, the Q12 and what was given to
23 you initially, was only one hair?

24 A Correct.

25 Q And in your experience, human beings shed many

1 hairs all the time?

2 **A** Yes, they do shed. We shed on average around a
3 hundred hairs per day. Most of the hairs, though, that are
4 shed, are naturally shed hairs that have a club-like
5 appearance to them.

6 **Q** And then sometimes someone brushes their hair or
7 something happens and someone's hair will stick on some
8 clothing, right?

9 **A** Correct.

10 **Q** All right. And one of the reasons you have a job
11 is because hairs are found everywhere at scenes, correct?

12 **A** Yes, correct.

13 **Q** In fact, it's one of the most -- it's one of the
14 most frequent things that are left at a scene?

15 **A** We see hairs at scenes all the time.

16 **Q** And a lot of these hairs aren't coming off of
17 someone pulling hair or brushing their hair or anything like
18 that. There are things called transfer, correct?

19 **A** Correct.

20 **Q** And when we say transfer, we're referring to, I
21 have some contact with you, somehow your hair ends up on
22 my -- on my jacket sleeve, and I can transfer it somewhere
23 else, correct?

24 **A** Correct. That's called an indirect transfer.

25 **Q** And also called secondary transfer?

1 **A** Yes.

2 **Q** Other transfer would be my own hair is on me
3 somehow, somewhere, and I come into contact with something,
4 and that sheds a hair?

5 **A** Yes, that's correct.

6 **Q** All right. And the likelihood of transfer -- or
7 saying if you only find one hair, that is consistent with
8 transfer, is it not?

9 **A** I'm sorry, can you clarify that?

10 **Q** If I have one hair that I leave at a crime scene,
11 and that hair is there, it doesn't necessarily mean the
12 person was there, does it?

13 **A** That's correct. I can't tell how that hair got to
14 that location.

15 **Q** And the fact that you would find one hair at a
16 scene, and not a bunch of hairs, that is consistent with
17 transfer, is it not, sir?

18 **A** I'm sorry, can you clarify that?

19 **Q** Sure. I'll rephrase the question. No problem.

20 If you -- if you find multiple hairs, numerous
21 hairs, that's not as consistent with transfer as much as if
22 you only find one hair, correct?

23 **A** Well, finding any hairs, um, separate from a
24 person's scalp, would be transfer.

25 **Q** It would be consistent with transfer, correct?

1 **A** Finding any hairs in a location other than the
2 person's scalp would indicate a transfer occurred.

3 **Q** And the likelihood is even increased more so if you
4 only find one hair, correct?

5 **A** It's a transfer whether it's one hair or many
6 hairs.

7 **Q** What -- what I mean, sir, is rather than the actual
8 person being at that location, that's what I'm referring to.
9 I know that they're all considered transfer.

10 But generally speaking, as opposed to the person
11 actually being in that location, it is more consistent with
12 transfer if you just find one hair, wouldn't you agree?

13 **A** Direct transfer?

14 **Q** Correct.

15 **A** It -- it may indicate that. I mean, again, we
16 don't know, even from a single hair, how it -- how it got to
17 that location, whether it was directly transferred, meaning
18 it went directly from the source to that location, or
19 indirectly transferred, meaning it went to another
20 intermediate object and then to that case -- and then to that
21 location.

22 **Q** And to conclude on your study, the environmental
23 conditions were completely different from your study than --
24 they weren't done in Florida, were they?

25 **A** No, they were not.

1 Q Where were they done, sir?

2 A They were conducted around Quantico, Virginia.

3 Q What time of the year?

4 A Between the months of August and April.

5 Q Get pretty cold up there during those months?

6 A It does.

7 Q And, of course, climate and heat is the biggest
8 factor that speeds up the decomposition process, is it not?

9 A That's my understanding.

10 Q Heat plays a major role in decomposition, does it
11 not, sir?

12 A My understanding is that heat can increase the rate
13 of decomposition. But that's really not my area of
14 expertise.

15 MR. BAEZ: Thank you, sir.

16 THE COURT: Any redirect?

17 MR. ASHTON: Yes, sir.

18 REDIRECT EXAMINATION

19 BY MR. ASHTON:

20 Q Just a couple of questions, sir.

21 The brush-like appearance that counsel asked you
22 about that distinguished the Q59 hairs found at the scene of
23 the body, and the Q12 hair from the trunk, is that an
24 indicator of more advanced decomposition?

25 A Yes. The -- the hair mass and the brush-like

1 appearance is an indicator of -- of further decomposition.

2 Q The two hairs that Mr. Baez spent some time
3 speaking to you about that initial examiners included as
4 banding and then excluded, what were the environmental
5 conditions under which those two hairs were -- were
6 maintained?

7 A They were both submerged in water for approximately
8 17 days.

9 Q So neither one of those hairs was in the trunk of a
10 car?

11 A That's correct.

12 Q The Q12 hair that counsel was asking you about, you
13 talked about shed hairs, was Q12 a shed hair?

14 A No. Q12 was an anagen or stretch root hair which
15 would indicate some force was required to remove that hair.

16 Q In all of -- and counsel correctly pointed out that
17 you see hairs all the time from crime scenes, correct?

18 A Yes.

19 Q Over -- over your career, would it be a fair
20 statement that you've seen thousands of hairs?

21 A That's fair, yes.

22 Q Aside from this particular case, the Q12 hair, have
23 you ever seen a hair with the decomp band that didn't come
24 from a corpse?

25 A No, I have not.

1 **MR. ASHTON:** No further questions.

2 **THE COURT:** Recross as to those issues and those
3 issues alone.

4 **MR. BAEZ:** Yes, sir.

5 **RECROSS EXAMINATION**

6 **BY MR. BAEZ:**

7 **Q** That last question that Mr. Ashton asked you,
8 you've only -- this is the first time you've testified about
9 this topic, correct?

10 **A** Yes, it is.

11 **Q** Okay. And are you aware of the thesis that was
12 conducted that you based this study on, the -- the underlying
13 conclusion?

14 **A** I -- I've read it. I'm familiar with it.

15 **Q** Okay. Are you aware of the conclusion that --

16 **MR. ASHTON:** Objection, hearsay, nonauthoritative.
17 Approach? I can explain more.

18 **THE COURT:** You may.

19 (The following conference was held at the bench.)

20 **MR. ASHTON:** Your Honor, I don't -- add an
21 additional objection. It's beyond the scope of the
22 redirect, which didn't go into the study.

23 However, counsel reading from a document is hearsay
24 unless it is an authoritative treatise. This is a
25 student thesis from John Jay College which has not been

1 established as being antitreatise.

2 The witness did talk about the study being part of
3 why he started this. I didn't have any objection to
4 generalized discussions by counsel, but to read the
5 conclusion of that study is hearsay and not
6 authoritative and improper cross-examination and beyond
7 the scope of redirect.

8 **MR. BAEZ:** One, I don't believe it was beyond the
9 scope.

10 Two, the witness has testified that he studied this
11 area. And part of that was the use of this study. I'll
12 withdraw the -- I won't read from the document. I
13 can -- he said he's familiar with it. I am certain he
14 doesn't remember the exact conclusion, but I can refresh
15 his recollection with it.

16 **MR. ASHTON:** Still --

17 **THE COURT:** Okay. Just a second. Just a second,
18 folks.

19 (Reviewing realtime screen.)

20 **THE COURT:** Okay. As to objection beyond the
21 scope, it will be sustained. Because he only covered
22 the following three areas: There were questions about
23 Q12 dealing with indications of advanced decomposition.
24 He asked about environmental conditions of two hairs and
25 hair banding, and he asked him -- his concluding line of

1 questioning dealt with in his number of years, have he
2 ever seen that other than in decomposition, that type of
3 hair. So those were the three areas of his redirect.

4 So the study would be beyond the scope of his
5 redirect --

6 **MR. BAEZ:** I -- I --

7 **THE COURT:** -- so it will be sustained.

8 **MR. BAEZ:** -- I would request to go outside the
9 scope.

10 **THE COURT:** For what basis?

11 **MR. BAEZ:** To get the -- to be able to get that
12 information out of him.

13 **THE COURT:** What information are you seeking to
14 get, Mr. Baez?

15 **MR. BAEZ:** That his conclusion of -- of the study
16 and what prompted his study was that -- the consequences
17 of misidentification as it relates to postmortem root
18 banding when it could be environmental factors.

19 Basically, that environmental factors, that there's
20 an ongoing issue of if there are environmental factors
21 being a reason for misidentification.

22 **MR. ASHTON:** That doesn't appear to be what the
23 quote is, though.

24 **MR. BAEZ:** It is. I was summarizing it.

25 **MR. ASHTON:** Well, at any rate, I do think counsel

1 could have asked the question on cross originally. It
2 is beyond the scope and so . . .

3 **THE COURT:** Let me see the -- let me see what
4 you're talking about.

5 **MR. ASHTON:** Can I look at it now?

6 **THE COURT:** Yeah.

7 **MR. ASHTON:** Okay.

8 **MR. BAEZ:** Harmless question.

9 **MR. ASHTON:** It's -- Judge, it's an argumentative
10 question. It's not a scientific question. That
11 conclusion is not a scientific one, it is a legal one.
12 And I think counsel can make that argument before the
13 jury. But to do it is outside the scope, and I don't
14 believe it would be a proper question anyway.

15 **THE COURT:** Okay. Just a second.

16 (Brief pause.)

17 **THE COURT:** I will permit him to ask one question
18 and appropriate follow-up questions out of abundance of
19 caution on the environmental effects on hair. That
20 could cause confusion. Okay.

21 **MR. ASHTON:** But not quoting the item.

22 **THE COURT:** No, not quoting that, not the study.

23 **MR. ASHTON:** That's fine. Thank you.

24 (The following proceedings were held on the record
25 in open court.)

1 **THE COURT:** You may proceed, Mr. Baez.

2 **MR. BAEZ:** Thank you, Your Honor.

3 **BY MR. BAEZ:**

4 **Q** Mr. Shaw, just two quick points that I'd like to
5 touch upon.

6 Based on your studies and experience, it is true
7 that environmental effects could cause confusion in
8 identifying or misidentifying postmortem root banding,
9 correct?

10 **A** Without proper training, there is that possibility.

11 **Q** Now, when you testified about the type of root on
12 the Q12 hair, and you said that some force would have had to
13 have been used, that doesn't mean that someone pulled that
14 hair out, correct?

15 **A** Not necessarily, no.

16 **Q** In fact, it could have come out through a brush?

17 **A** It could have.

18 **Q** And any -- and numerous other ways, as well,
19 correct?

20 **A** Correct.

21 **MR. BAEZ:** No further questions.

22 **MR. ASHTON:** One follow-up?

23 **THE COURT:** Yes, sir.

24 **FURTHER REDIRECT EXAMINATION**

25 **BY MR. ASHTON:**

1 **Q** Would moving a dead body be one of those ways that
2 the hair could have been pulled out?

3 **A** It could have, yes.

4 **MR. ASHTON:** No further questions.

5 **THE COURT:** May the witness be excused?

6 **MR. BAEZ:** Yes, sir.

7 **MR. ASHTON:** Yes, sir.

8 **THE COURT:** Thank you, Mr. Shaw. You may be
9 excused.

10 **THE WITNESS:** Thank you, Your Honor.

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C E R T I F I C A T E

STATE OF FLORIDA:
COUNTY OF ORANGE:

I, Nikki Peters, CRR, RPR, Official Court Reporter of the Ninth Judicial Circuit of Florida, do hereby certify pursuant to Florida Rules of Judicial Administration 2.535(h)(3), that I was authorized to and did report in stenographic shorthand the foregoing proceedings, and that thereafter my stenographic shorthand notes were transcribed to typewritten form by the process of computer-aided transcription, and that the foregoing pages contain a true and correct transcription of my shorthand notes taken therein.

WITNESS my hand this _____ day of _____ 2011, in the City of Orlando, County of Orange, State of Florida.

Nikki Peters
Certified Real-time Reporter